

LOW-NOISE OPTICAL PROBES

Abstract of the Disclosure

5 An optical probe, which is particularly suited to reduce noise in measurements taken on an easily compressible material, such as a finger, a toe, a forehead, an earlobe, or a lip, measures characteristics of the material. A neonatal and adult disposable embodiment of the probe include adhesive coated surfaces to securely affix the probe onto the patient. In addition, the surface of the probe is specially constructed to minimize light piping effects. Furthermore, a flex circuit acts as a spring to absorb shock which may misalign the emitter and detector. One embodiment 10 of the adult probe includes a cushioning pocket formed for a fingertip to align the probe and to absorb motion of the probe due to contact. The neonatal probe is formed with a unique V-configuration which provides multiple advantages.

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